

Fig. 1

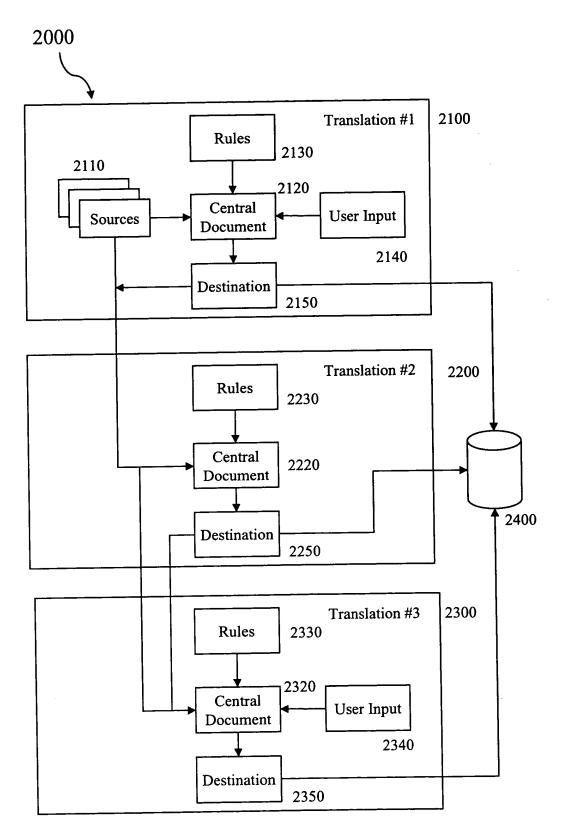


Fig. 2

```
<?xml version="1.0"?>
<Order>
<Item
id='Turkey Sub'
size="large"
customer="Joseph Schmoe"
price="3.50"/>
<Item
id='Diet Coke'
size="medium"
customer="Joseph Schmoe"
price="0.90"/>
<Item
id="Fritos, 1.5 oz"
customer="Joseph Schmoe"
price="0.75" />
<Item
id='Hamburger'
size="medium"
customer="Betty Schmoe"
price="2.50"/>
<Item
id='Fries'
size="medium"
customer="Betty Schmoe"
price="0.99" />
<Item
id="Diet Coke"
size="medium"
customer="Betty Schmoe"
price="0.90" />
</Order>
```

```
<xsl:transform version="1.0"</pre>
  xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
  xmlns:Prefs="Prefs">
   <xsl:output method="xml" encoding="UTF-8" indent="yes" />
   <Prefs:Prefs customer="Joseph Schmoe">
      <Item id="Turkey Sub">
        <detail description="no mayo"/>
        <detail description="no onions"/>
        <detail description="extra lettuce" price="0.50" />
        <detail description="extra tomato" price="0.50" />
      </Item>
      <Item id="Grilled Chicken Sandwich">
        <detail description="no mayo"/>
      </Item>
      <Ttem id="Diet Coke">
         <detail description="no ice"/>
      </Item>
    </Prefs:Prefs>
    <xsl:template match="/Order">
       <xsl:copy>
          <xsl:apply-templates select="Item"/>
       </xsl:copy>
    </xsl:template>
    <xsl:template name="CustomizeItem" match="Item">
       <xsl:param name="CustomerName" select="./@customer" />
       <xsl:param name="ItemID" select="./@id" />
       <xsl:param name="CustomerPrefs"</pre>
          select="document('')/*/Prefs:*[@customer=$CustomerName]"/>
       <xsl:param name="CustItem"</pre>
          select="$CustomerPrefs/Item[@id=$ItemID]" />
          <Item id="{@id}"
             customer="{@customer}"
             special="{count($CustomerItem) >0}"
             base_price="{@price}"
             price="{./@price + sum($CustItem/detail/@price)}">
             <xsl:apply-templates</pre>
                select="$ CustItem/detail" mode="ApplyDetails"/>
          </Item>
    </xsl:template>
    <xsl:template name="ApplyDetails" match="*" mode="ApplyDetails">
       <xsl:copy-of select="." />
    </xsl:template>
</msl:transform>
```

```
<?xml version="1.0" encoding="UTF-8"?>
<Order>
   <Item id="Turkey Sub" customer="Joseph Schmoe" special="true"</pre>
      base_price="3.50" price="4.5">
      <detail description="no mayo" />
      <detail description="no onions" />
      <detail description="extra lettuce" price="0.50" />
      <detail description="extra tomato" price="0.50" />
   </Item>
   <Item id="Diet Coke" customer="Joseph Schmoe" special="true"</pre>
      base_price="0.90" price="0.9" >
      <detail description="no ice" />
   </Item>
   <Item id="Fritos, 1.5 oz" customer="Joseph Schmoe" special="false"</pre>
      base_price="0.75" price="0.75" />
   <Item id="Hamburger" customer="Betty Schmoe" special="false"</pre>
      base_price="2.50" price="2.5" />
   <Item id="Fries" customer="Betty Schmoe" special="false"</pre>
      base_price="0.99" price="0.99"/>
   <Item id="Diet Coke" customer="Betty Schmoe" special="true"</pre>
      base_price="0.90" price="0.9" >
      <detail description="extra ice" />
   </Item>
</order>
```

```
<xsl:transform version="1.0"</pre>
xmlns:xsl="http://www.w3.org/1999/XSL/Transform"
xmlns:Preferences="Preferences">
<xsl:output method="xml" omit-xml-declaration="yes"</pre>
      encoding="UTF-8" indent="yes" />
<xsl:key name="KeyOrderByCustomer" match="Item"</pre>
      use="./@customer" />
<xsl:template match="/*">
<xsl:param name="CustomerFirstItem" select="//Item[count(.</pre>
| key('KeyOrderByCustomer', ./@customer )[1]) = 1]" />
<html>
<body >
<xsl:copy>
<xsl:apply-templates</pre>
select="$CustomerFirstItem"
mode="OrderByCustomer" />
</msl:copy>
<form>Customer Comments<br/>
<input type="text"</pre>
name="'CustomerComments'" /><br/>
<input type="button"</pre>
name="'AcceptOrder'" value="Place Order"
onclick="SaveOrder.onclick();"/>
</form>
</body>
<xml id="SaveOrder"</pre>
onclick="
for(i=0;i!=document.forms.length;i++)
document.forms.item(i).innerHTML=' ';
OrderXML=document.body.outerHTML;
OrderXML=OrderXML.replace('id=SaveOrder','id
="SaveOrder"');
OrderDoc=new XctiveXObject('Msxml2.DOMDocument.4.0');
OrderDoc.loadXML(OrderXML);
OrderDoc.save('C://Documents and Settings//hogamx//My
Documents//Patent//order.xml');
"/>
</html>
</xsl:template>
```

```
<xsl:template name="OrderByCustomer" match="Item"</pre>
mode="OrderByCustomer">
<xsl:param name="CustomerName" select="@customer" />
<div><h2>
<xsl:value-of select="@customer"/> Order
<xsl:apply-templates</pre>
select="//Item[@customer=$CustomerName]"
mode="ListAndCustomizeItem" />
</h2></div>
</xsl:template>
<xsl:template name="ListAndCustomizeItem" match="Item"</pre>
mode="ListAndCustomizeItem">
<xsl:param name="CustomerName" select="./@customer" />
<xsl:param name="ItemType" select="./@type" />
<xsl:param name="CustomerPreferences"</pre>
           select="document(concat($CustomerName,
' Prefs.xml'))/Preferences" />
<xsl:param name="CustomerItemPreferences"</pre>
select="$CustomerPreferences/Item[@type=$ItemType]" />
<xsl:param name="ItemID"</pre>
select="concat($CustomerName,'item',position())" />
<h3>
<xsl:value-of select="./@type"/>
</h3>
<Item type="{@type}"</pre>
      name="{$ItemID}"
      customer="{@customer}"
      special="{count($CustomerItemPreferences) >0}"
      base_price="{@price}"
      price="{./@price +
sum($CustomerItemPreferences/detail/@price)}">
<xsl:apply-templates select="$CustomerItemPreferences/detail"</pre>
mode="ApplyDetails">
<xsl:with-param name="ItemID" select="$ItemID" />
</xsl:apply-templates>
</Item>
</xsl:template>
```

```
<xsl:template name="ApplyDetails" match="detail"</pre>
mode="ApplyDetails">
<xsl:param name="ItemID" select="'' />
<xsl:param name="DetailID"</pre>
select="concat($ItemID, 'detail', position())" />
<detail description="{@description}"</pre>
id="{$DetailID}" />
<h4><
<xsl:value-of select="@description" />
<xsl:apply-templates select="." mode="Make-GUI">
<xsl:with-param name="DetailID"</pre>
select="$DetailID" />
</xsl:apply-templates>
</h4>
</xsl:template>
<xsl:template name="Extra-GUI"</pre>
match="detail[starts-with(@description,'extra ')]"
mode="Make-GUI">
        <xsl:param name="DetailID" select="'' />
<xsl:param name="extra-item" select="./@description" />
<input TYPE="radio" NAME="'HowMuchExtra'"</pre>
onclick="document.getElementById('{$DetailID}').howmuchextra='
a little'"> a little
<xsl:value-of select="$extra-item" />
  </input>
   <input TYPE="radio" NAME="'HowMuchExtra'"</pre>
onclick="document.getElementById('{$DetailID}').howmuchextra='
a little'"> some
<xsl:value-of select="$extra-item" />
</input>
<input TYPE="radio" NAME="'HowMuchExtra'"</pre>
onclick="document.getElementById('{$DetailID}').howmuchextra='
a little'"> whole lotta extra <xsl:value-of select="$extra-
item" />
</input>
</form>
</xsl:template>
</xsl:transform>
```

9000	
Joseph Schmoe Order Turkey Sub	
	no mayo
	no onions
	extra lettuce
	C a little extra lettuce S some extra lettuce S whole lotta extra extra lettuce
	extra tomato
	C a little extra tomato C some extra tomato © whole lotta extra extra tomato
Diet Coke	
	no ice
Fritos, 1 5 o	Z
Betty Sch Hamburger	moe Order
Fries	
	no salt
Diet Coke	
	extra ice
	© a little extra ice C some extra ice C whole lotta extra extra ice
Customer Co Hove this Place (place

Fig. 9

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<Order xmlns:Preferences="Preferences">
<Item type="Turkey Sub" name="Joseph Schmoeiteml"</pre>
customer="Joseph Schmoe" special="true"
base price="5.5" price="6.5">
<detail description="no mayo"
id="Joseph Schmoeitemldetail1" />
<detail description="no onions"
id="Joseph Schmoeitemldetail2" />
<detail description="extra lettuce"
id="Joseph Schmoeitemldetail3"
howmuchextra="some" />
<detail description="extra tomato"
id="Joseph Schmoeitemldetail4"
howmuchextra="whole lotta" />
</Item>
<Item type="Diet Coke" name="Joseph Schmoeitem2"</pre>
customer="Joseph Schmoe" special="true"
base price="0.9" price="0.9">
<detail description="no ice"
id="Joseph Schmoeitem2detail1" />
</Item>
<Item type="Fritos, 1.5 oz" name="Joseph Schmoeitem3"</pre>
customer="Joseph Schmoe" special="false" base_price="0.75"
price="0.75" />
<Item type="Hamburger" name="Betty Schmoeitem1"</pre>
customer="Betty Schmoe" special="false"
base price="2.5" price="2.5" />
<Item type="Fries" name="Betty Schmoeitem2"</pre>
customer="Betty Schmoe" special="true"
base price="0.99" price="0.99">
<detail description="no salt"
id="Betty Schmoeitem2detail1" />
</Item>
<Item type="Diet Coke" name="Betty Schmoeitem3"</pre>
customer="Betty Schmoe" special="true"
base price="0.9" price="0.9">
<detail description="extra ice"
id="Betty Schmoeitem3detail1"
howmuchextra="a little" />
</Item>
</Order>
```